

REMARKS

Applicant has reviewed and considered the Office Action mailed on April 3, 2003, and the references cited therewith.

Claims 1-30 are now pending in this application.

§103 Rejection of the Claims

Claims 1-4, 6-20, 22 and 24-30 were rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) in view of Denenberg (US 5,375,174). This rejection is respectfully traversed at least because such references are not properly combinable. Lambrecht effectively indicates that it would not work on transient noise, such as a siren because it does not continuously sample ambient noise. Denenberg is specifically designed to work synchronously in an emergency vehicle with a siren as indicated in the title: "Remote Siren Headset". Thus, there is no motivation to combine the references, and the rejection should be withdrawn.

A factor cutting against a finding of motivation to combine or modify the prior art is when the prior art teaches away from the claimed combination. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path the applicant took. *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994); *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966); *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969); *In re Caldwell*, 319 F.2d 254, 256, 138 USPQ 243, 245 (C.C.P.A. 1963).

There is no suggestion to combine the references, and in fact, there is teaching leading one of average skill in the art away from such a combination. Denenberg is directed toward providing noise cancellation to a wireless headset. In Denenberg, the microphones 34 and 35 are located in the headset 30, and a remote controller 38 is used to process the noise signals and provide the cancellation signal using a **synchronous** controller. Lambrecht utilizes a sample signal, so that "the noise cancellation function requires relatively little processing power and is accomplished without the need for special purpose hardware." Abstract. Thus, Lambrecht is

directed to a different problem, that of providing noise cancellation while reducing “the processing requirements of the host processor.” Col. 2, lines 26 – 27. Lambrecht further teaches away in Col. 6, lines 49-59:

“The above described systems are effective for canceling relatively constant statistically predictable noise. For example, airplane noise is relatively constant and has a statistically predictable frequency spectrum. Because the noise is relatively constant and statistically predictable, a cancellation signal can be calculated **without continuously sampling the noise environment**. If the characteristics of the noise change at a relatively slow rate and remain statistically predictable, the above-described systems can effectively cancel noise by periodically updating the cancellation signal”

Lambrecht effectively indicates that it would not work on transient noise, such as a siren, as is indicated in the title of Denenberg. Lambrecht indicates that continuous sampling is not required, whereas Denenberg uses a synchronous controller to compensate for transient noise such as the siren. Thus, there is no suggestion to combine the references, and the rejection should be withdrawn.

The Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002). The Office Action stated “it would obvious to one of ordinary skill in the art at the time invention was made to combine the teaching of Lambrecht and Denenberg to achieve an audio entertainment system or a communications system can be combined with a noise control system and the system of this teaching to provide a quieter listening environment and better sound fidelity” which is a mere conclusory statement of subjective belief. There is no identification of a suggestion in the art for such a combination. Applicant respectfully submits that the Office Action has not provided objective evidence for a suggestion or motivation to combine the references.

Claims 24-30 specifically recite: “a profile for compensating for keyboard key clicks detected by the microphone”. There is no teaching in Lambrecht to such a profile. In fact, Lambrecht teaches away in Col. 6, lines 49-59:

“The above described systems are effective for canceling relatively constant statistically predictable noise. For example, airplane noise is relatively constant and has a statistically predictable frequency spectrum. Because the noise is relatively constant and statistically predictable, a cancellation signal can be calculated without continuously sampling the noise environment. If the characteristics of the noise change at a relatively slow rate and remain statistically predictable, the above-described systems can effectively cancel noise by periodically updating the cancellation signal”

Lambrecht effectively indicates that it would not work on transient noise, such as keyboard sounds. Instead, it works on constant noise, such as airplane noise. Thus, given the teaching away, and the lack of teaching of the profile element, the rejection should be withdrawn.

Claim 5 was rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) and Denenberg (US 5,375,174) as applied to claim 1, and further in view of Eatwell (US 5,828,768). Claim 5 depends from claim 1 and is believed to distinguish the references for at least the same reason since Eatwell is not cited as providing the motivation to combine Lambrecht and Denenberg.

Claim 28 further describes "a built-in microphone of said personal computer". The microphone of the Lambrecht device does not appear to be built-in as recited in claim 28. The examiner's attention is directed to col. 3, lines 48-52 of Lambrecht: "Microphone 108 is a conventional microphone that converts sound to electrical audio signals. In one embodiment, the microphone is physically located with the speaker or headphone. Speaker 110 is conventional speaker or headphone for converting electrical audio signals to audible sound."

Claims 21, 23 were rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) and Denenberg (US 5,375,174) as applied to claims 1, 8, and furthering view of Markow (US 6,304,434). Claims 21 and 23 depend from claim 1 and are believed to distinguish the references for at least the same reason since Markow is not cited as providing the motivation to combine Lambrecht and Denenberg.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney 612-373-6972 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-0439.

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